April 3, 1973
Preliminary Copy
University of Idaho
Soil Conservation Service

Lovell Silt Loam 64 Ida 0501

General Site Characteristics

Location--Benewah County, Idaho, approximately 600 feet north, 45 feet east of center section, southwest 1/4, northeast 1/4 section 10, T. 44 N., R. 5 W.; described--September 9, 1964 by Marritt; topography--wide drainageways, bottomland, 0-1 percent slope; elevation--250 feet; parent material--alluvium from loess, belt of rocks and some basalt, volcanic ash influence heavy; drainage--imperfectly drained; vegetation or use--summer fallow; classification--Aquic Eutroboralfs, fine silty, mixed.

Pedon Description

Ap 0-8 inches. Light brownish gray (10YR 5.8/1.8) silt loam, very dark brown (9YR 2/1.8) moist; weak medium crumb structure; friable, slightly sticky, slightly plastic; non-calcareous; abrupt smooth boundary.

A21 8-14 inches. Gray (10YR 5.6/1) silt loam, very dark brown (10YR 2/1.6) moist; massive with trend to weak medium platy to weak fine subangular blocky structure; friable to very friable, slightly sticky, slightly plastic; non-calcareous; gradual smooth boundary.

A22 14-18 inches. Gray (10YR 5.8/1.2) silt loam, very dark gray (10 YR 2.6/1.2) moist; massive with trend to weak medium platy to weak fine subangular blocky structure; friable to very friable, slightly sticky, slightly plastic; non-calcareous, abrupt smooth boundary.

B21t 18-22 inches. Light gray to gray (10YR 6/1.2) interior, light brownish gray (10YR 6.4/2) crushed, silt loam, very dark grayish brown (10YR 3.2/2) interior, moist, very dark brown (10YR 2/2) clay film, moist, very dark gray (10YR 3.2/1.4) crushed, moist; strong to moderate fine platy structure; friable, slightly sticky, slightly plastic; non-calcareous; thick nearly continuous clay films and on horizontal pore faces; abrupt smooth boundary.

B22t 22-26 inches. Light gray (10YR 6.6/2) interior, light gray (10YR 6.8/2) crushed, silt loam, dark brown (10YR 3.8/3.2) peds, moist, very dark brown (10YR 2/2) clay film, moist, dark grayish brown (10YR 4/2) crushed, moist; weak fine to medium subangular blocky structure; friable to firm, slightly sticky, slightly plastic; non-calcareous; many fine and very fine vesicular and interstitial pores; medium continuous clay films line pores; abrupt smooth boundary.

B23t 26-34 inches. Light gray (10YR 6.8/2) interior, light gray (10YR 6.6/2) crushed, silt loam, brown to dark brown (10YR 4/3) matrix, moist, very dark brown (10YR 2/2) clay film, moist, dark grayish brown (10YR 3.6/1.8) crushed, moist; weak medium to fine platy structure; friable, slightly sticky to sticky, slightly plastic; non-calcareous; many very fine vesicular and interstitial pores; thick nearly continuous clay films in vertical and horizontal pores; clear smooth boundary.

IIB24t 34-37 inches. Light gray (10YR 6.6/2) crushed, loam, dark grayish brown (10YR 4/2.4) matrix, moist, very dark grayish brown (10YR 2.6/2) clay film, moist, dark grayish brown (10YR 3.8/2.2) crushed, moist; friable to firm, slightly sticky, slightly plastic to plastic; non-calcareous; common to many very fine interstitial and tubular pores; thick continuous clay films in vertical and horizontal pores; clear smooth boundary.

IIB25t 37-44 inches. Light yellowish brown (10YR 6.4/3.8) crushed, loam, dark yellowish brown (10YR 4/4) matrix, moist, very dark gray (10YR 3/1.4) clay film, moist, dark brown (10YR 3.8/2.8) crushed, moist; massive to weak fine platy structure; firm to friable, slightly sticky, slightly plastic to plastic; non-calcareous; common very fine tubular and interstitial pores; medium nearly continuous clay films in vestical and horizontal pores; clear smooth boundary.

IIB3 44-51 inches. Very pale brown (10YR 6.8/3) matrix, pale brown (10YR 6.2/3.4) crushed, loam, brown to dark brown (10YR 4/3) moist, with some red-brown mottles; massive; friable to firm, slightly sticky, slightly plastic; non-calcareous; many very fine vesicular and interstitial pores; medium nearly continuous clay films in pores; abrupt smooth boundary.

IIIC1 51-58 inches. Light gray (10YR 7.2/2) matrix, pale brown (10YR 5.8/3) crushed, loam, pale brown (10YR 6/3) matrix, moist, yellowish brown (10YR 5/4-5/6) mottles, moist; massive; friable to firm, slightly sticky, slightly plastic; non-calcareous; common very fine interstitial pores; thin occasional clay films in pores; black concretions.

Chemical characterization and physical analysis of profile

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No.	Horizon	Depth in.	pH Paste	pH 1:5	ECx10^3	Saturation extract me/1000 gms soil Ca	Mg	Na	K	CO_3	HCO_3	Cl	SO_4
1	Ap	0-8	6.05		.59								
2	A21	8-14	6.35		.42								
3	A22	14-18	6.50		.36								
4	B21t	18-22	6.70		.45								
5	B22t	22-26	7.00		.32								
6	B23t	26-34	6.95		.38								
7	IIB25t	37-44	6.65		.35								
8	IIB3t	44-51	6.80		.35								
9	IIC1	51-58	6.85		.40								

Exchangeable ions me/100 gms Ca	Mg	Na	K	H	C.E.C. meq/100	Base Sat.%	Gyp.	$CaCO_3$	E.S.P.	O.M. %	N %	C:N	Soil:Rx ratio
11.2	2.7	.3	.4	5.2	19.4	73.4				2.23	.137	9.5	
11.6	3.0	.3	.3	5.2	22.4	74.4				1.93	.117	9.6	
11.8	3.2	.4	.2	3.7	18.6	80.7				1.34	.080	9.8	
16.7	6.7	.7	.3	5.0	32.4	83.1				.68	.049	8.2	
18.3	4.6	1.0	.3	3.3	26.8	88.1				.42	.034	7.4	
15.8	5.6	.8	.3	4.1	29.5	84.5				.43	.033	7.6	
14.2	5.7	.5	.3	4.3	25.0	82.9				.24	.022	6,4	
9.3	3.7	.4	.2	3.3	16.9	80.5				.15	.016	7.0	
7.6	2.6	.3	.2	2.1	10.5	83.8				.07	.013	3.1	

$$\%C = \frac{\%OM}{1.72}$$

Reference for Data: Dr. Maynard Fosberg
Dept. of Plant & Soil Sciences
University of Idaho
Moscow, Idaho 83843

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Date: September 16, 1969

No.	Particle size distribution (mm) (percent)								Gravel & Stone, etc.	Texture Class
	VCS 2-1.0	CS 1-0.5	MS 0.5-0.25	FS 0.25-0.05	VFS 0.1-0.05	TS	TSi 0.05-0.002	TC < 0.002	> 2mm	
0- 8	.12	.29	.49	2.71	13.66	17.27	63.44	19.28	none	Silt loam
8-14	.08	.17	.22	1.20	9.30	10.98	66.35	22.67	none	Silt loam
14-18	.18	.18	.33	1.66	10.93	13.28	67.41	19.31	none	Silt loam
18-22	.13	.45	.53	3.74	15.16	20.02	68.75	11.22	none	Silt loam
22-26	.16	.44	.64	5.04	17.22	23.51	63.85	12.64	none	Silt loam
26-34	.24	.64	.79	5.82	18.40	25.89	60.31	13.80	none	Silt loam
37-44	.30	1.38	4.42	10.25	12.42	28.77	46.46	24.77	none	Loam
44-51	.37	3.14	5.80	10.16	20.28	39.77	44.15	16.09	none	Loam
51-58	.09	1.41	2.36	17.67	26.08	47.61	41.87	10.51	none	Loam

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Analysis by: Ellen Buchert